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Advanced Photon Source
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EDUCATION

- 1995 Ph.D. (Physics), McGill University, Montréal, Canada. (Dean's Honour List)
"Intensity fluctuation spectroscopy with coherent X-rays."
Supervisor: Professor Mark Sutton.
- 1990 M.Sc. (Physics), University of Waterloo, Waterloo, Ontario, Canada.
"A study of high purity Cd_xSe_{1-x} vacuum deposited thin films."
Supervisor: Professor D.E. Brodie.
- 1987 B.Sc. (Physique), Université Laval, Ste-Foy, Canada.

ACADEMIC AWARDS

- 1996-97 Natural Science and Engineering Research Council of Canada (NSERC)
postdoctoral fellowship.
- 1992-93 Fonds aux Chercheurs et à l'Aide à la Recherche du Québec (FCAR)
doctoral fellowship and McGill University Carl Reinhart Fellow.
- 1990-92 NSERC doctoral scholarship.
- 1988-90 NSERC master's scholarship and University of Waterloo fellowship.
- 1987-86 NSERC summer student scholarships, at the University of Toronto.

PROFESSIONAL MEMBERSHIP AND SERVICE

- 1989- Member of the Canadian Association of Physicists
- 1991- Member of the Canadian Institute for Synchrotron Radiation
- 1991- Member of the American Physical Society
- 1989- Member of the Materials Research Society
- 1999- Member of the American Association for the Advancement of Science
- Feb. 2002- Co-chair, APS Technical Working Group
- Apr. 2006

2003-2006	Chair, APS General Users Review Panel on Instrumentation
2006-	Argonne Center for Nanomaterials Proposal Review Panel
2007-	Ultrafast Special Interest Group, APS, Webmaster and co-organizer
2008	External reviewer, Director Review of LUSI, LCLS, SLAC March 3-5, 2008
2008	Future of X-ray Operation and Research (XOR) Committee
2009-	Advanced Photon Source Renewal Technical Advisory committee

WORK AND TEACHING EXPERIENCE

- 2004- **Beamline Scientist, X-ray Science Division, Advanced Photon Source, Argonne National Laboratory (Associate Research Scientist level).** My responsibilities as Sector 7 Coordinator include the administration of our beamline operation, the supervision of four PhD scientists and a scientific associate. I am also continuing my operation and research role at Sector 7 started in 1998.
- 1998-2004 **Senior Research Associate in the Physical Sciences II, Department of Physics, University of Michigan.** As a beamline Scientist for the University of Michigan, Howard University, Lucent Technologies-Bell Labs Collaborative Access Team (MHATT-CAT) at the Advanced Photon Source (APS), my task was to support the operation of the MHATT-CAT insertion device beam line, to participate in the scientific and professional activities of the CAT, to help users of this facility to perform their experiments, and to pursue an active research program focused on coherent and incoherent time-resolved X-ray scattering techniques. While stationed at the APS, I became a critical element in the operation of a state of the art synchrotron radiation research facility. In 2001, I became the Sector 7 Manager.
- 1998 **Discussion Instructor at the Department of Physics, University of Michigan.** I taught three sections of Introduction to Electromagnetism. The students teaching evaluation is available upon request.
- 1996-98 **Postdoctoral Fellow at the Department of Physics of the University of Michigan.**
- 1991-95 **Teaching Assistant, Department of Physics, McGill University.** I marked assignments for 3rd year Electromagnetism, Biophysics and 2nd year Thermodynamics.
- 1994 **Assistant System Manager** of the condensed matter physics computer system.
- 1988-90 **Teaching Assistant, Department of Physics, University of Waterloo.** I marked first year physics, 4th year optics and graduate quantum mechanics.
- 1988 **Instructor, Extension de l'enseignement, Université Laval, Ste-Foy, Québec.** I taught three first year physics courses: mechanics, electromagnetism and optics.
- 1987-88 **Substitute teacher, Ecole Polyvalente LaCamaradière, Québec, Québec.**

Grants

- October 2007- “*Novel Concepts in Streak-Camera Development, and Applications*”, Bernhard W. Adams, K. Attenkofer, Eric M. Dufresne, E.C. Landahl, T. Rajh, L. X. Chen, A. Miceli, J. Lee, S. Ross, Strategic LDRD FY08.

October 2007- “*Ultrafast x-ray tracking of laser-controlled molecular motions*”, Linda Young, L. Chen, R. Dunford, Elliot Kanter, B. Kraessig, R. Santra, S. Southworth, D. Tiede, S. Vajda, B. Adams, D. Arms, K. Attenkofer, Eric Dufresne, E. Landahl, D. Walko and J. Wang, Strategic LDRD FY08.

TALKS and CONFERENCE PRESENTATIONS

- Oct. 2009 Contributed talk, Workshop on applications of Coherent X-ray Methods, Melbourne University, Melbourne, Australia
- Sep. 2009 Contributed talk, International SRI 2009 conference Melbourne, Australia
- Jun. 2008 Contributed talk, Canadian Association of Physicists, Université Laval, Québec, Canada
- Jun. 2007 Contributed talk, Coherence 2007, International Workshop on Phase Retrieval and Coherent Scattering, Monterrey CA
- Jun. 2007 Contributed talk, Canadian Association of Physicists, University of Saskatchewan, Saskatoon Saskatchewan
- May 2007 APS User Seminar, Chicago IL.
- Apr. 2007 Invited talk, SRI 2007, Satellite Workshop on Coherence and Polarization
- Apr. 2007 Chair with Joseph Holmes the satellite workshop on Coherence and Polarization at SRI 2007
- Apr. 2007 Contributed talk and one poster, SRI 2007, Baton Rouge LA
- Jun. 2006 Contributed talk, and one poster, the 2006 International Synchrotron Radiation Instrumentation Conference in Korea.
- Jun. 2006 Contributed talk, Canadian Association of Physicists, Brock University, St-Catherines ON.
- Feb. 2006 Poster, Gordon 2006 Conference on Ultrafast Phenomena, CA.
- Dec. 2005 APS Technical Working Group, Chicago IL.
- Oct. 2005 APS Technical Working Group, Chicago IL.
- Jun. 2005 APS User Seminar, Chicago IL.
- Aug. 2004 Invited talk, 2004 XOR Retreat, Argonne IL.
- Jun. 2004 Invited talk, CUOS, Univ. of Michigan, Ann Arbor MI.
- Mai. 2004 Poster presented at the Ultrafast 2004 conference, San Diego CA
- Apr. 2004 APS Technical Working Group, Chicago IL.
- Aug. 2003 Two posters presented at SRI 2003, the Synchrotron Radiation Instrumentation Conference in San Francisco, CA.
- Jun. 2003 Invited talk, APS,ESRF, Spring-8 Workshop, ANL, IL
- May. 2003 Invited talk, Univ. of Michigan, CUOS, Ann Arbor MI.
- Mar. 2003 APS Technical Working Group, Chicago IL.

Dec. 2002 Invited talk, INRS-Energie, Montreal, Canada
Sept. 2002 APS Technical Working Group, Chicago IL.
Aug. 2002 APS Technical Working Group, Chicago IL.
Feb. 2002 APS Technical Working Group, Chicago IL.
Jan. 2002 APS User Seminar, Chicago, IL.
Sep. 2001 APS Technical Working Group, Chicago IL.
Aug. 2001 Two posters presented at SRI 2001, the Synchrotron Radiation Instrumentation Conference in Madison, WI.
Mar. 2001 APS Technical Working Group, Chicago IL.
Oct. 2000 APS Technical Working Group, Chicago IL.
June 2000 Talk at the Canadian Association of Physicist Conference, Toronto, ON, Canada.
Oct. 1999 Poster presented at SRI 99, the Synchrotron Radiation Instrumentation Conference at SSRL, Palo Alto, CA.
Aug. 1999 Poster presented at X99, the 1999 X-ray Absorption and Spectroscopy Conference, Chicago, IL.
June 1998 Talk at the Canadian Association of Physicist Conference, Waterloo, ON, Canada.
May 1997 Invited talk at the NSLS Annual Users' Meeting, Workshop on XPCS, Upton, NY.
Nov. 1996 Invited talk, Department of Physics, Oakland University, Rochester, MI.
Jan. 1996 NSLS lunch time seminar, Brookhaven National Labs, Upton, NY.
June 1995 Canadian Association of Physicist Conference, Québec, PQ, Canada.
May 1995 Department of Physics, University of Michigan, Ann Arbor MI.
May 1995 Department of Physics, Brookhaven National Labs, Upton, NY.
June 1990 Poster presented at the Canadian Association of Physicist Conference, Guelph ON, Canada.

PUBLICATIONS

Refereed Articles

1. Robert V. Reeves, Jeremiah D.E. White, Eric M. Dufresne, Kamel Fezzaa, Steven F. Son, Arvind Varma, and Alexander S. Mukasyan, “*Microstructural transformations and kinetics of high-temperature heterogeneous gasless reactions by high-speed x-ray phase contrast imaging*”, Physical Review B (in print)
2. Alexei Grigoriev, Rebecca J. Sichel, Ji Young Jo, Samrat Choudhury, Long-Qing Chen, Dane Morgan, Ho Nyung Lee, Eric C. Landahl, Bernhard W. Adams, Eric M. Dufresne, and Paul G. Evans, “*Stability of unswitched ferroelectric polarization in ultrathin epitaxial Pb(Zr,Ti)O₃*”, Physical Review B **80** (July 21) 014110-1 to 014110-6 (2009). DOI: 10.1103/PhysRevB.80.014110.

3. E.M. Dufresne, S.B. Dierker, L.E. Berman and Z. Yin, "Development of New Apertures for Coherent X-ray Experiments.", Journal of Synchrotron Radiation, **16** 358-367 (May) (2009). DOI: 10.1107/S0909049509003720
4. T. Ejdrup, H. T. Lemke, K. Haldrup, T. N. Nielsen, D. A. Arms, D. A. Walko, A. Miceli, E. C. Landahl, E. M. Dufresne and M. M. Nielsen, "Picosecond time-resolved laser pump/X-ray probe experiments using a gated singlephoton-counting area detector", Journal of Synchrotron Radiation **16** 387-390 (May) (2009), DOI: 10.1107/S0909049509004658
5. E. P. Kanter, R. Santra,1, C. Hohr, E. R. Peterson, J. Rudati, D. A. Arms, E. M. Dufresne, R. W. Dunford, D. L. Ederer, B. Krassig, E. C. Landahl, S. H. Southworth, and L. Young, "Characterization of the Spatiotemporal Evolution of Laser-generated Plasmas", J. Appl. Phys. 104 no 7 (October 9) 073307-1 to 073307-7 (2008) DOI: 10.1063/1.2991339
6. N . Husseini , D . Kumah , J . Yi , C . Torbet , D . Arms , E . Dufresne , T . Pollock , J . Wayne Jones , R . Clarke, "Mapping single-crystal dendritic microstructure and defects in nickel-base superalloys with synchrotron radiation.", Acta Materialia , Volume 56 , Issue 17 (October), Pages 4715 - 4723 (2008) DOI: 10.1016/j.actamat.2008.05.041
7. A. Grigoriev, R. Sichel, H. N. Lee, E.C. Landahl, B. Adams, E. M. Dufresne, and P. G. Evans, "Nonlinear piezoelectricity in epitaxial ferroelectrics at high electric fields", Phys. Rev. Lett. **100** 027604 (January 18) (2008) DOI:10.1103/PhysRevLett.100.027604.
8. S. H. Southworth, D. A. Arms, E. M. Dufresne, R. W. Dunford, D. L. Ederer, C. Höhr, E. P. Kanter, B. Kraessig, E. C. Landahl, E. R. Peterson, J. Rudati, R. Santra, D. A. Walko, and L. Young, "K-edge x-ray-absorption spectroscopy of laser-generated Kr+ and Kr2+", Phys. Rev. A **76**, 043421 (2007) DOI:10.1103/PhysRevA.76.043421.
9. "Real time structural modification of epitaxial FePt thin films under x-ray rapid thermal annealing using undulator radiation", J. R. Skuza, R. A. Lukaszew, E. M. Dufresne, D. A. Walko, C. Clavero, A. Cebollada C. N. Cionca and R. Clarke, Appl. Phys. Lett. **90** 251901 (2007) DOI: 10.1063/1.2749426.
10. "Synchronizing fast electrically driven phenomena with synchrotron x-ray probe" Alexei Grigoriev, Dal-Hyun Do, Paul G. Evans, Bernhard Adams, Eric Landahl, and Eric M. Dufresne Rev. Sci. Instrum. **78**, No 2 Feb. 26, 023105 (2007).
11. "Alignment dynamics in a laser-produced plasma" C. Hohr, E. R. Peterson, N. Rohringer, J. Rudati, D. A. Arms, E. M. Dufresne, R. W. Dunford, D. L. Ederer, E. P. Kanter, B. Krssig, E. C. Landahl, R. Santra, S. H. Southworth, and L. Young Phys. Rev. A. Rapid Communications **75**, 011403R (2007).
12. "X-Ray Microprobe of Orbital Alignment in Strong-Field Ionized Atoms" L. Young, D. A. Arms, E.M. Dufresne, R.W. Dunford, D.L. Ederer, C. Hohr, E.P. Kanter, B. Krassig, E.C. Landahl, E.R. Peterson, J. Rudati, R. Santra, and S.H. Southworth, Phys. Rev. Lett. 97, 083601 August 21 (2006).
13. "Nanosecond Domain Wall Dynamics in Ferroelectric PbZrTiO₃ Thin Films" A. Grigoriev, D.-H. Do, D. M. Kim, C.-B. Eom, B. Adams, E. M. Dufresne, and P. G. Evans, Phys. Rev. Lett., 96, 187601 (2006).
14. "Subnanosecond piezoelectric x-ray switch" A. Grigoriev, D.-H. Do, D. M. Kim, C.-B. Eom, B. Adams, E. M. Dufresne, and P. G. Evans, Appl. Phys. Lett., 89, 021109 (2006).
15. "Synchrotron X-ray Fluorescence Analysis of Copper and Zinc in Silicate and Oxide Minerals from Granitoid Rocks" D.P. Core, S.E. Kesler, E.J. Essene, E.M. Dufresne, R. Clarke, D.A. Arms, D. Walko, M.L. Rivers, The Canadian Mineralogist, **43** pages 1781-1796 (2005).

16. M.F. DeCamp, D.A. Reis, D.M. Fritz, P.H. Bucksbaum, E.M. Dufresne and R. Clarke, “*X-ray synchrotron studies of ultrafast crystalline dynamics*”, J. Synch. Rad., **12**, Part 2, pages 177-192 (2005).
17. A. Fluerasu, M. Sutton, E.M. Dufresne, “*X-Ray Intensity Fluctuation Spectroscopy Studies on Phase-Ordering Systems*”, Phys. Rev. Lett. **94** 055501 (2005).
18. D.-H. Do, P.G. Evans, E.D. Isaacs, D. M. Kim, C.-B. Eom, and E.M Dufresne, “*Structural visualization of two electric field regimes of polarization fatigue in epitaxial ferroelectric oxide devices*”, Nature Materials, **3**, June 6, 365-369 (2004).
19. Z. Zhang, R.A. Lukaszew, C. Cionca, X. Pan, R. Clarke, A. Zambano, D. Walko, E. Dufresne, S. te Velthius, “*Correlated structural and magnetization reversal studies on epitaxial Ni films grown with molecular beam epitaxy and with sputtering*”, J. Vac. Sci. Technol. A 22(4), p1868-1872 (2004).
20. N.R. Pereira, E.M. Dufresne, R. Clarke, and D.A. Arms, “*Parabolic lithium refractive optics for X-rays*”, Rev. Sci. Instrum. **75**, 37-41 (2004).
21. M.F. DeCamp, D.A. Reis, A. Cavalieri, P. H. Bucksbaum, R. Clarke, R. Merlin, E.M. Dufresne, D.A. Arms, A.M. Lindenberg, A.G. Macphee, Z. Chang, B. Lings, J.S. Wark, S. Fahy, “*Supersonic strain front driven by a dense electron-hole plasma.*”, Phys. Rev. Lett. **91** 165502-1 (2003).
22. S. Yang, Y. Horibe, C.H. Chen, P. Mirau, T. Tatry, P. Evans, J. Grazul, E.M. Dufresne, “*Ordered Hydrophobic Organosilicates Tempered by Block Copolymers*”, Chem. Mater. Vol. 14, 5173-5178 (2002).
23. B.W. Adams, M.F. DeCamp, E.M. Dufresne and D.A. Reis, *Picosecond Laser-Pump, X-ray Probe Spectroscopy of GaAs*, Rev. Sci. Instrum Vol. 73, December, p4150 (2002).
24. Y. Yacoby, M. Sowwan, E. Stern, J. Cross, D. Brewe, R. Pindak, J. Pitney, E. M. Dufresne and R. Clarke, “*Direct determination of epitaxial interface structure in Gd_2O_3 passivation of GaAs*”, Nature Materials Vol. 1 no. 2, p99-101 (2002).
25. E. Dufresne, T. Nurushev, R. Clarke, and S.B. Dierker. “*SAXS Study of Concentration Fluctuations in the Binary Mixture Hexane-Nitrobenzene*”, Phys. Rev. E., Vol. 65, June 21, 065107 (2002).
26. E.M.Dufresne, D.A. Arms, R. Clarke, S.B. Dierker, N.R. Pereira, and D. Foster, “*Lithium metal for x-ray refractive optics*”, Appl. Phys. Lett., **79** no 25 p4085-7 (2001).
27. M.F. DeCamp, D. A. Reis, P. H. Bucksbaum, B. Adams, J.M. Caraher, R. Clarke, C.W.S. Conover, E.M. Dufresne, R. Merlin, V. Stoika, and J.K. Wahlstrand, “*Coherent Control of Pulsed X-ray Beams*”, Nature **413** p825 October 25 2001.
28. D. A. Reis, M. DeCamp, P. H. Bucksbaum, R. Clarke, E. Dufresne, M. Hertlein, R. Merlin, R. Falcone, H. Kapteyn, M. Murnane, J. Larsson, Th. Missalla, J. Wark, “*Probing impulsive strain propagation with x-ray pulses*”, Phys. Rev. Lett., **86** 3072 (2001).
29. E. Dufresne, R. Brüning, M. Sutton, G.B. Stephenson and B. Rodricks, “*A statistical technique for characterizing X-ray position-sensitive detectors.*” Nuclear Instruments and Methods A **364** (1995) 380-393.
30. S. Brauer, G.B. Stephenson, M. Sutton, R. Brüning, E. Dufresne, S.G.J. Mochrie, G. Grübel, J. Als-Nielsen and D.L. Abernathy, “*X-ray Intensity Fluctuation Spectroscopy Observations of Critical Dynamics in Fe_3Al .*” Physical Review Letters **74** (1995) 2010-2013.
31. M. Sutton, R. Brüning and E. Dufresne, “*Longitudinal diffraction scans using a position sensitive detector.*” Nuclear Instruments and Methods in Physics Research A **355** (1995) 654-659.

32. S.W. Kycia, A.I. Goldman, T.A. Lograsso, D.W. Delaney, D. Black, M. Sutton, E. Dufresne, R. Brüning and B. Rodricks, “*Dynamical x-ray diffraction from an icosahedral quasi-crystal.*” Physical Review B **48** (1993) 3544-3547.
33. E. Dufresne and D.E. Brodie, “*A study of high-purity Cd_xSe_{1-x} vacuum deposited thin films.*” Canadian Journal of Physics **69** (1991) 124.

Book Chapters

34. B. W. Adams, P.H. Bucksbaum, M.F. DeCamp, E.M. Dufresne, M.E. Garcia, H.O. Jeschke, A. Lindenberg, D.A. Reis, P. Sondhauss, J.S. Wark, and P. Zambianchi, *Nonlinear Optics, Quantum Optics, and Ultrafast Phenomena with X-ray*, Kluwer Academics Publisher, ISBN 1-4020-7475-1 (2003).

Refereed Conference Proceedings

35. “Time-Resolved Research at the Advanced Photon Source Beamline 7-ID”, Eric M. Dufresne, Bernhard Adams, Dohn A. Arms, Matthieu Chollet, Eric C. Landahl, Yuelin Li, Donald A. Walko and Jin Wang, To appear in the Proceedings of the 10th International Synchrotron Radiation Conference, in Melbourne Australia in an AIP volume.
36. “Optimal Countrates for Deadtime Corrections”, Donald A. Walko, Dohn A. Arms, Eric M. Dufresne and Eric C. Landahl, To appear in the Proceedings of the 10th International Synchrotron Radiation Conference, in Melbourne Australia in an AIP volume.
37. “Ultrafast X-Ray Phase Contrast Imaging Of a Gasless Reactive System Using 3rd Generation Synchrotron Radiation”, R.V. Reeves, J.D.E. White, E.M. Dufresne, K. Fezzaa, A.S. Mukasyan, and S.F. Son, to appear in the Proceedings of the American Physical Society’s 16th Topical meeting on Shock Compression of Condensed Matter. edited by M. Elert et al. (Amer Inst Physics, Nashville, TN, 2009).
38. “*In situ x-ray probes for piezoelectricity in epitaxial ferroelectric capacitors*”, Dal-Hyun Do, Alexei Grigoriev, Dong Min Kim, Chang-Beom Eom, Paul G. Evans, Eric M. Dufresne, Proceedings of the International Symposium on Integrated Ferroelectrics, Integrated Ferroelectrics, 101 no 1 December p174 (2008).
39. “*A study of laser-generated strain fields with X-ray microdiffraction*”, Eric M. Dufresne, B.W. Adams, E.C. Landahl, Proceedings of the 14th National Synchrotron Radiation Instrumentation Conference SRI07, Nuclear Instruments and Methods in Physics Research A 582 Nov. 15 (2007) 205-207.
40. “*Observation of a tilted Gaussian beam on the 7ID beamline of the advanced photon source*”, Eric M. Dufresne, Ali Khounsary, Proceedings of the 14th National Synchrotron Radiation Instrumentation Conference SRI07, Nuclear Instruments and Methods in Physics Research A 582 Nov 15 (2007) 63-65.
41. “*Fabrication and evaluation of variable focus X-ray lenses*”, Ali Khounsary, Eric M. Dufresne, Cameron M. Kewish, Jun Qian, Lahsen Assoufid, Ray Conley, Proceedings of the 14th National Synchrotron Radiation Instrumentation Conference SRI07, Nuclear Instruments and Methods in Physics Research A 582 Nov. 15 (2007) 117-119.
42. “*A Design Study for Photon Diagnostics for the APS Storage Ring Short-Pulse X-ray Source*”, B.X. Yang, A.H. Lumpkin, E.C. Landahl, E.M. Dufresne, Proc. of the 22nd Particle Accelerator Conference (PAC07), IEEE, August (2007), 1156 - 1158.

43. "Studies of Ultrafast fs-laser Generated Strain Fields with Coherent X-rays" Eric M. Dufresne, Eric C. Landahl and Bernhard Adams, David Fritz, SooHeyong Lee, and David Reis Talk presented by E. Landahl at the SRI2006 conference, May 28, 2006, Proceedings of SRI 06, AIP Volume 879, ISBN 978-0-7354-0373-4, 1210-1213 Jan. 2007.
44. "The Impact of Pressure Regulation of Cryogenics Fluids and EPICS PID Feedback on the Monochromatic Beam Position Stability of the 7ID Beamline at the Advanced Photon Source." Eric M. Dufresne, Dohn A. Arms, Eric C. Landahl, and Donald A. Walko. Poster presented at the SRI2006 conference, May 28, 2006, Proceedings of SRI 2006, AIP Volume 879, ISBN 978-0-7354-0373-4, 950-953 Jan. 2007.
45. "Refractive X-ray Lenses from Lithium" Nino R. Pereira, Eric. M. Dufresne, D. A. Arms. Poster presented at the SRI2006 conference, May 28, 2006, Proceedings of SRI 2006, AIP Volume 879, ISBN 978-0-7354-0373-4, 985-988 Jan. 2007.
46. "Fabrication and Performance of a Lithium Compound Refractive X-Ray Lens" Kristina Young, Ali Khounsary, Andrew N. Jansen, Eric M. Dufresne, and Philip Nash Poster presented at the SRI2006 conference, May 28, 2006, Proceedings of SRI 2006, AIP Volume 879, ISBN 978-0-7354-0373-4, 989-993 Jan. 2007.
47. "A Simple Short-range Point-focusing Spatial Filter for Time-resolved X-ray Fluorescence" C. Hhr, E. Peterson, R.W. Dunford, E.P. Kanter, L. Young, E. Landahl, D.A. Walko
Poster winner presented at the SRI2006 conference, May 28, 2006, Proceedings of SRI 2006, AIP Volume 879, ISBN 978-0-7354-0373-4, 1226-1229 Jan. 2007.
48. "X-ray microprobes of optical strong-field processes" L. Young, R.W. Dunford, D.L. Ederer, E.P. Kanter, B. Kraessig, J. Rudati, S.H. Southworth, D. Arms, Eric M. Dufresne and E.C. Landahl, Proceedings of the 20th International Conference on X-ray and Inner Shell Processes X05 in 2005, Melbourne, Australia, Radiation Physics and Chemistry **75**, no 11, 1799-1807 (2006).
49. "Nanosecond structural visualization of the reproducibility of polarization switching in ferroelectrics" Alexei Grigoriev, Dal-Hyun Do, Dong Min Kim, Chang-Beom Eom, Paul G. Evans, Bernhard W. Adams and Eric M. Dufresne Proceedings of the Eighteenth International Symposium on Integrated Ferroelectrics (ISIF-18) ISIF 2006 April 23-27, 2006, in Honolulu, Hawaii, George W. Taylor, Sandip Dey, James F. Scott, Tae W. Noh, eds. Integrated Ferroelectrics, 85 p165-173 November (2006).
50. E.M. Dufresne, J.A. Guzman, S.B. Dierker, R. Clarke, D.A. Arms, and D.A. Walko, "Experience with a Fluorescence-based Beam Position Monitor at the APS", presented at the SRI 2003 International Conference in August 2003 in San Francisco, AIP Conference Proceedings vol. 705, April 6, p780-783 (2004).
51. E.M. Dufresne, D.A. Arms, N.R. Pereira, P. Ilinski, and R. Clarke, "An Imaging System for Focusing Tests of Li Multi-Prism X-ray Refractive Lenses", presented at the SRI 2003 International Conference in August 2003 in San Francisco, AIP Conference Proceedings vol. 705, April 6, p679-682 (2004).
52. D.-H. Do, D.M. Kim, C.-H. Eom, E.M. Dufresne, E.D. Isaacs, and P.G. Evans, Synchrotron X-ray Microdiffraction Images of Polarization Switching in PZT Capacitors with SrRuO₃ Top Electrodes, MRS Proceedings, Fall 2003 meeting Symposium C, Paper C6.4 Vol. 784 (2004).
53. B. Hou, J. Nees, A. Mordovaniki, E. Power, G. Mourou, E.M. Dufresne, R. Clarke, Coherence of hard x-rays in the relativistic λ^3 regime", to be presented at the OSA Topical Meeting on Applications of High Field and Short Wavelength Sources X, Biarritz, France in October 2003. Proceedings to Appear in Applied Physics B.

54. Y.S. Chu, A. Tkachuk, S. Vogt, P. Ilinski, D.A. Walko, D.C. Mancini, E.M. Dufresne, L. He, and F. Tsui, “*Structural Investigation of CoMnGe Combinatorial Epitaxial Thin Films Using Microfocused Synchrotron X-ray*”, Proceedings of the Second US-Japan Workshop on Combinatorial Material Science and Technology, Applied Surface Science Feb. 15, 214-219 (2004).
55. Y. Yacoby, M. Sowwan, E. Stern, J. Cross, D. Brewe, R. Pindak, J. Pitney, E.B. Dufresne, and R. Clarke, *Direct determination of epitaxial film and interface structure: GD₂O₃ on GaAs.*, published in the Proceedings of the Seventh International Conference on Surface X-ray and Neutron Scattering, Sept. 23-27 2002 in Lake Tahoe, Ed. J.F. Ankner and S. Brennan, Physica B **336** 39-45 (2003).
56. W.F. Schlatter, C. Cionca, S.S. Paruchuri, J.B. Cunningham, E. Dufresne, S.B. Dierker, D. Arms, R. Clarke, J.M. Ginder, and M.E. Nichols, “*The Dynamics of Magnetorheological elastomers studied by synchrotron radiation speckle analysis*”, in the Proceedings of the Eight International Conference on Electrorheological Fluids and Magnetorheological Suspensions in Nice, France, Summer of 2001. Published in the International Journal of Modern Physics B, Vol. 16, Nos 17&18 (2002) p2426-2432.
57. D.A. Arms, E.M. Dufresne, R. Clarke, S.B. Dierker, N.R. Pereira, and D. Foster, “*Refractive optics using lithium metal*”, In the Proceedings of the SRI 2001 Conference, Rev. Sci. Instrum. **73**, p1492-1494 (2002).
58. E.M. Dufresne, D.A. Arms, S.B. Dierker, R. Clarke, Y. Yacoby, J. Pitney, B. Macharrie, R. Pindak, “*Design and Performance of a Stable First Crystal Mount for a Cryogenically Cooled Si Monochromator at the APS*”, in the Proceedings of the SRI 2001 Conference, Rev. Sci. Instrum. **73**, p1511-1513 (2002).
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60. E. Dufresne, T. Sanchez, T. Nurushev, R. Clarke and S.B. Dierker, “*A Fixed Angle Double Mirror Filter for Preparing a Pink Undulator Beam at the Advanced Photon Source*”, in Synchrotron Radiation Instrumentation SRI 99: Eleventh US National Conference, Stanford, CA 1999, AIP Conference Proceedings 521, Melville New York, p238-241, 2000.
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